SECTION III NOTE

Cleaning of the hole: Unless otherwise required by the manufacturer's recommendations, the drilled hole may be deepened to allow the concrete debris to remain in the hole provided the hole does not exceed 2/3 of the concrete thickness in the direction of the drilled hole. The depth required for embedment must be free of debris. This rule does not apply to drop—in anchors that rely on the bottom of a clean drilled hole to set the expansion element.

INSTALLTION

Tay be substituted for vertically placed chemical anchors or expansion bolts only when nay be substituted for vertically through the sill plate. This condition commonly occurs not not one of greatly reduced height.

The sunchor side plates must be installed on each piece of sill plate 32 inches or longer. The plate shall be installed a minimum of 9 inches but not more than 12 inches from the end of plate shall be installed a minimum of 9 inches but not more than 12 inches from the end of plate shall be installed a minimum of 9 inches but not more than 12 inches from the end of plate shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed a minimum of 9 inches but not more than 12 inches from the end of the shall be installed and t

H. ANCHOR SIDE PLATE INSTALLINON

1. Anchor side plates may be substituted for vertically blaced chemical anchors or expansion bolts only when conditions prevent anchor or bolt installation vertically through the sill plate. This condition commonly occurs when there is no pany wall or one of greatly reduced height.

2. A minimum of two anchor side plates must be installed on each piece of sill plate 32 inches or longer. The nearest edge of the plate shall be installed a minimum of 9 inches but not more than 12 inches from the end of the sill plate.

3. Installation of the anchor bolts in the existing concrete shall follow the information in Section G except as noted herein. Care shall be used to insure the drilled hole depth does not exceed 2/3rds of the stem wall thickness when using expansion bolts. Cleaning of the hole shall be required for these expansion bolts due to the limited stem wall thickness available to overdrill the hole.

4. Lag screws and wood screw shall be located at the center of the plate thickness and shall penetrate the sill plate a minimum of 2-1/2 inches.

(b) Lead holes shall be pre-drilled for the threaded portion of the strew as follows:

(a) The lag or wood screw and 1/8 inch drill bit for 1/4 inch lag screws.

(c) Clearance holes shall labe the full depth of penetration of the lag screw. Use a 1/4 inch diameter drill bit for 3/8 inch lag screw. The clearance hole shall be equal in depth and diameter to the solid portion of the shank as follows:

(a) The clearance hole shall be equal in depth and diameter to the solid portion of the shank. Wood screw. The clearance hole shall be about 7/8ths of the diameter of the shank. Use a 3/16 inch drill bit for #14 screws

(d) The threaded portion of the lag or wood screw shall be inserted in its lead hole by turning with a wrench and to prevent damage to the lag screw.

aming clips: All framing clips shall be of minimum 18 gauge galvanized steel, of 4-1/2 inchall rate ICBO or equivalent for wood frame construction. The seismic load capacity in the long seet or exceed 385 lbs in dry lumber. The fasteners must be 12-8d common $\times 1-1/2$ inchapproved. #6 $\times 1-1/2$ inch flat head wood screws may be used at existing rim joist, blocking

<u>ste washers:</u> 3/16 x 2 x 2 square plate washers are required. Standard circular cut washers shall not be used connect sill plates to concrete stem walls. Washers furnished with the proprietary anchors shall not be used. veled washers shall be used on anchors drilled at an angle exceeding 6 degrees from vertical and shall be used over the plate washers.

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|--|-----------------------------|------------------------------------|---|---|--|
| Summary of N | ANCHOR | SIZE AND SPACING (E, G, H): | 1/2 inch at 6 ft. on center maximum | 1/2 inch at 4 ft. on center maximum or 5/8 inch at 6 ft. on center maximum | 5/8 inch at 4 ft. on center maximum or 1/2 inch at 2'-8" on center maximum |
| linimum Pro | SHORT | 6 ft. to | 3 anchors | 4 anchors for 1/2 in. bolts; 3 anchors for 5/8 in. bolts | 4 anchors |
| escriptive R | SHORT SILL PLATES (E, G, H) | 30 in. to < 6 ft. | 2 anchors | 2 anchors | 2 anchors |
| equirements | , G, Н) | < 30 in. | 1 anchor near center | 1 anchor near center | 1 anchor near center |
| Summary of Minimum Prescriptive Requirements For Anchoring Frame | PONY WALL BRACING (I | HEAVY TILE ROOF and STUCCO WALLS ① | Total bracing not less than 50% of wall length. Install part of bracing at each end of wall section and remainder equally spaced in between ends. | Total bracing not less than 70% of wall length. Install part of bracing at each end of wall section and remainder equally spaced in between ends. | Install bracing over 100% of the wall length. |
| 6 | BRACING (I) | ALL OTHER CONDITIONS | Total bracing not less than 40% of wall length. Install part of bracing at each end of wall section and remainder equally spaced in between ends. | Total bracing not less than 50% of wall length. Install part of bracing at each end of wall section and remainder equally spaced in between ends. | Install bracing over 80% of the wall length. Install part of bracing at each end of wall section and remainder equally spaced in between ends. |
| Foundation System ①③ | FRAMING | CONNECTIONS (E) | 32 in. on center maximum | 24 in. on center maximum | 24 in. on center maximum |
| | TSIOL | BLOCKING (E, I) | At alternate joist spaces | At every joist space above braced Pony walls, at alternate joist spaces at other locations | At all joist spaces |
| | | | | | |
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| THE HOME ASSESSMENT CHECKLIST | +FCKI IST | | 18. Is the floor framin |
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| | | | framing clips or ar |

| lualification Requirements (Existing Conditions) | | | |
|---|------------------------------|---------------|-----------|
| Il "Yes" or "NA" (not applicable) answers mean your home is qualified to use the Standard Earthquake Home Retrofit SEHR) Plan. You may need to hire an engineer or architect to develop the appropriate retrofit method if "no" or | nquake Home Renethod if "no" | etrofit or | |
| uncertain" is checked. | | | |
| łome Characteristics | Yes or NA | No | Uncertain |
| Is the home of light, wood—frame residential construction? | | | |
| Does the home have four or fewer dwelling units? | | | |
| Is a sill plate present? | | | |
| ls the home built on a flat or moderate slope of less than 30 percent (approximately 18 degrees from horizontal)? | | | |
| Is the foundation wall around the perimeter of the home continuous except for allowable exclusions? | | | |
| Is the foundation of concrete or reinforced masonry that is in good condition? | | | |
| Are the pony walls 4 feet or less in height? | | | |
| Is the home three stories or less, counting pony walls over 18 $1/2$ inches as one story? | | | |
| Additional Home Information | Yes | No | Uncertain |
| What is the overall height of the pony wall? (Specify dimension.) | | | • |
| How many floors are above the pony wall (or above the foundation)? (Specify # of floors.) | | | |
| Is the roof made of standard lightweight roofing materials, such as wood or composition shingle? | | | |

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|--|------------|--|-----------|----|-----------|
| Il top plate with metal Yes or NA No on either the on either the aced 3 to 6 aced 3 to 6 acid 3 to 6 ctural panels? | | 18. Is the floor framing system connected to the underlying sill plate with metal framing clips or are 8d nails placed 6 inches on center? | | | |
| on either the on either the aced 3 to 6 additions) spaced 6 ctural panels? | | . | | | |
| | | Strengthening the Pony Wall (Answer NA if no pony walls) | Yes or NA | No | Uncertain |
| | | 20. Are pony wall double top plates present and in good condition? | | | |
| | | | | | |
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| | | | | | |

| N | Name and daytime phone number of person who completed the Home Assessment Checklist (PLEASE PRINT) |
|-----|---|
| | |
| For | For Office Use Only: |
| | Home qualifies to use the Standard Earthquake Home Retrofit Plan |
| | Home does not qualify to use the Standard Earthquake Home Retrofit Plan |
| | Home earthquake retrofit not needed |
| | Damaged or missing structural elements must be repaired or installed before completing the retrofit |

Standard Earthquake Home Retrofit Plan Set

EARTHQUAKE DAMAGE REDUCTION IN EXISTING WOOD FRAME RESIDENTIAL BUILDINGS WITH WEAK PONY WALLS AND UNBOLTED SILL PLATES